



- ☒ L28: (4094) TMR
- ☒ L29: (4652) non adj magnetic adj layer\$1
- ☒ L30: (291) 28 and 29
- ☒ L31: (141) double adj tunnel\$5
- ☒ L32: (49) 31 and TMR
- ☒ L33: (19) 32 and 29
- ☒ L34: (22) 31 and 29
- ☒ L35: (178) 30 and memory
- ☒ L36: (88) 35 and stack\$6
- ☒ L37: (0) multiple adj layer\$1 adj TMR
- ☒ L38: (7) multilayer adj TMR
- ☒ L39: (32500) parallelogram\$2
- ☒ L40: (7569) magnetic adj memory
- ☒ L41: (410) 40 and resistive and cell\$1
- ☒ L42: (410) 41 and memory
- ☒ L43: (275725) 257/\$.cccls.
- ☒ L44: (60938) 365/\$.cccls.
- ☒ L45: (151434) 438/\$.cccls.
- ☒ L46: (74) 42 and 43
- ☒ L47: (30) 39 and 40
- ☒ L48: (7) magnetic adj fixing adj layer
- ☒ L49: (1964) fixing adj layer
- ☒ L50: (332) 49 and magnetic
- ☒ L51: (52) 50 and 29
- ☒ L52: (1) stacked adj fixing adj layer
- ☒ L53: (1964) fixing adj layer
- ☒ L54: (25) non-magnetic adj sub-layer
- ☒ L55: (35) non adj magnetic adj sub adj layer
- ☒ L56: (4245) non adj magnetic adj layer
- ☒ L57: (50) 53 and 56

DB: USPAT:US PGPUB:EPO:JPO:DERWENT:IBM:TOB

Default operator: OR

53 and 56

5/24/04

RRS form ISAR form Images Text HTML

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	Retrieval Cla	Inventor	S	C	P	3	Image 1*
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20040065906	20040408	27	Semiconductor integrated circuit device	257/208			Asao, Yoshiaki	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2004
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20040061978	20040401	20	Differential detection read sensor, thin film head for perpendicular magnetic	360/314	360/324.2		Kawato, Yoshiaki	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2004
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030193762	20031016	80	Magneto-resistance effect element, magneto-resistance effect head, magneto-resistance effect device	360/324.12	360/314		Hayashi, Kazuhiko et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030058576	20030327	30	Magnetic head having an antistrapping layer for preventing a magnetic layer from	360/126			Honjo, Hiroaki et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030048581	20030313	19	Thin film magnetic head and a method of producing the same	360/126			Ohtomo, Shigekazu et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
6	<input type="checkbox"/>	<input type="checkbox"/>	US 20030031897	20030213	18	Magnetic recording medium and	428/694TM	428/65.1		Fukazawa, Toshio et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003

Ready Details HTML

Ready

NUM



BRS: upside

Pending

Active

- L1: (66) "5734605"
- L2: (417) bit\$1 adj line\$1 adj group
- L3: (1) magnetic adj memory
- L4: (4094) TMR
- L5: (9) 2 and 4
- L6: (2) "6717845"
- L7: (1) "6430085".PN.
- L8: (1) "6556473".PN.
- L9: (1) "6639830".PN.
- L10: (6) 1 and pitch
- L11: (44) column adj line\$1 adj group\$1
- L12: (34) 11 and memory
- L13: (7569) magnetic adj memory
- L14: (2842) MRAM
- L16: (29) 2 and 14
- L15: (14) 2 and 13
- L28: (4094) TMR
- L29: (4652) non adj magnetic adj layer\$1
- L30: (291) 28 and 29
- L31: (141) double adj tunnel\$5
- L32: (49) 31 and TMR
- L33: (19) 32 and 29
- L34: (22) 31 and 29
- L35: (178) 30 and memory
- L36: (88) 35 and stack\$6
- L37: (0) multiple adj layer\$1 adj TMR
- L38: (7) multilayer adj TMR
- L39: (32500) parallelogram\$2
- L40: (7560) magnetic adj memory

DB: USPAT:US-PGPUB:EPQ:JPD:DERWENT:IBM:TD8
Default operator: OR

53 and 56

5/24/04

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	Retrieval Cla	Inventor	S	C	P	3	Image 1
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20040065906	20040408	27	Semiconductor integrated circuit device	257/208			Asao, Yoshiaki	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2004
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20040061978	20040401	20	Differential detection read sensor, thin film head for perpendicular magnetic	360/314	360/324.2		Kawato, Yoshiaki	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2004
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030193762	20031016	80	Magneto-resistance effect element, magneto-resistance effect head, magn	360/324.12	360/314		Hayashi, Kazuhiko et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030058576	20030327	30	Magnetic head having an antistripping layer for preventing a magnetic layer f	360/126			Honjo, Hiroaki et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030048581	20030313	19	Thin film magnetic head and a method of producing the same	360/126			Ohtomo, Shigekazu et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003
6	<input type="checkbox"/>	<input type="checkbox"/>	US 20030031897	20030213	18	Magnetic recording medium and	428/694TM	428/65.1		Fukazawa, Toshio et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US 2003

☐ No ☒ Details ☒ HTML

Ready

NUM

L Number	Hits	Search Text	DB	Time stamp
1	66	"5734605"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 10:32
2	417	bit\$1 adj line\$1 adj group	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 10:33
3	1	mangnetic adj memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 10:33
4	4094	TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 10:34
5	9	(bit\$1 adj line\$1 adj group) and TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 11:13
6	2	"6717845"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 10:35
7	1		USPAT	2004/05/24 10:36
8	1		USPAT	2004/05/24 10:56
9	1		USPAT	2004/05/24 10:57
10	6	"5734605" and pitch	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 11:28
11	44	column adj line\$1 adj group\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 11:29
12	34	(column adj line\$1 adj group\$1) and memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 12:26
13	7569	magnetic adj memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 12:26
14	2842	MRAM	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 12:26

16	29	(bit\$1 adj line\$1 adj group) and MRAM	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:08
15	14	(bit\$1 adj line\$1 adj group) and (magnetic adj memory)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 12:54
28	4094	TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:08
29	4652	non adj magnetic adj layer\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:09
30	291	TMR and (non adj magnetic adj layer\$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:09
31	141	double adj tunnel\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:10
32	49	(double adj tunnel\$5) and TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:11
33	19	((double adj tunnel\$5) and TMR) and (non adj magnetic adj layer\$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:21
34	22	(double adj tunnel\$5) and (non adj magnetic adj layer\$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:51
35	178	(TMR and (non adj magnetic adj layer\$1)) and memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 13:56
36	88	((TMR and (non adj magnetic adj layer\$1)) and memory) and stack\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:33
37	0	multiple adj layer\$1 adj TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:03

38	7	multilayer adj TMR	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:04
39	32500	parallelogram\$2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:34
40	7569	magnetic adj memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:35
41	410	(magnetic adj memory) and resistive and cell\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:35
42	410	((magnetic adj memory) and resistive and cell\$1) and memory	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:35
43	275725	257/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:36
44	60938	365/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:36
45	151434	438/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:37
46	74	((((magnetic adj memory) and resistive and cell\$1) and memory) and 257/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 14:40
47	30	parallelogram\$2 and (magnetic adj memory)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:09
48	7	magnetic adj fixing adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:14
49	1964	fixing adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:15

50	332	(fixing adj layer) and magnetic	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:15
51	52	((fixing adj layer) and magnetic) and (non adj magnetic adj layer\$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:40
52	1	stacked adj fixing adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:41
53	1964	fixing adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:42
54	25	non-magnetic adj sub-layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:45
55	35	non adj magnetic adj sub adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:46
56	4245	non adj magnetic adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:47
57	50	(fixing adj layer) and (non adj magnetic adj layer)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/24 15:47